

VIA CERTIFIED MAIL

Mr. Frank Harris  
Sullair Corporation  
3700 E. Michigan Blvd  
Michigan City, Indiana 46360

Re: SMF 091-9389  
First Significant Modification to  
FESOP F091-5794-00017

Dear Mr. Harris:

Sullair Corporation was issued a Federal Enforceable State Operating Permit (FESOP) on December 10, 1996 for the operation of air and gas compressor manufacturing operation. A letter requesting changes to this permit was received on January 16, 1998. Pursuant to the provisions of 326 IAC 2-8-11 a significant modification to this permit is hereby approved as described in the attached Technical Support Document for First Significant Permit Modification of the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR).

The modification consists of the construction and operation of a new surface coating line and cold cleaner degreaser to be located at 4921 Ohio Street, Michigan City, Indiana; changes in the emission limitation, record keeping and reporting requirements for the existing and new paint lines; and the addition of the General Construction Conditions

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jeremy Magliaro, c/o OAM at the above address; or by phone at 973-575-2555 extension 3284 or 1-800-451-6027.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

Attachments

JM/EVP

cc: File - LaPorte County  
U.S. EPA, Region V  
LaPorte County Health Department  
Air Compliance Section - Rick Reynolds  
Compliance Data Section - Jerri Curless  
Administrative and Development - Janet Mobley  
Data Support - Nancy Landau

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
and ENHANCED NEW SOURCE REVIEW  
OFFICE OF AIR MANAGEMENT**

**Sullair Corporation  
3700 East Michigan Blvd., and 4921 Ohio St  
Michigan City, Indiana 46360**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F091-5794-00017	
Original issued by Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: December 10, 1996
First Significant Modification: SMF091-9389	Pages Affected: 2, 3, 4, 5, 15, 19a, 20-22, 22a, 23a, 23b, 28
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

## SECTION A SOURCE SUMMARY

### A.1 General Information

The Permittee owns and operates an air and gas compressor manufacturing source.

Responsible Official: James P. Price  
Source Address: 3700 East Michigan Blvd., Michigan City, IN 46360  
Mailing Address: 3700 East Michigan Blvd., Michigan City, IN 46360  
SIC Code: 3563  
County Location: LaPorte  
County Status: Nonattainment for sulfur dioxide  
Attainment for all other criteria pollutants  
Source Status: Synthetic Minor Source, FESOP Program

### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- a) One (1) spray paint booth, known as the Small Paint Booth, equipped with electrostatic air atomized spray equipment, equipped with dry filters for PM overspray control, exhausting through Stacks 64 and 65, capacity: 50 compressor parts per hour.
- b) One (1) spray paint booth, known as the Large Paint Booth, equipped with electrostatic air atomized spray equipment, equipped with dry filters for PM overspray control, exhausting through Stacks 67, 68, 69 and 70, capacity: 10 compressor parts per hour.
- c) One (1) spray paint booth, known as the Building 2 Paint Booth, equipped with air atomization spray equipment, equipped with dry filters for PM overspray control, exhausting through Stack 2-11, capacity: 20 compressor parts per hour.
- d) One test cell building, consisting of nine (9) test bays, accommodating portable internal combustion diesel oil-fired machines, exhausting through Stacks 78, 79, 81, 82, 85, 87, 89, 94, 95, 96, 97, 98, 99 and 100 rated at a total of 16.9 million British thermal units per hour.
- e) One cold solvent cleaning system.
- f) one (1) spray paint booth, identified as the Building 3 paint booth, with a maximum capacity of coating 3.0 metal compressors per day, utilizing air atomization application with dry filters for particulate control, and exhausting through one (1) stack (S/V ID ST-1);

### A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

- c) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- d) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- e) Machining where an aqueous cutting coolant continuously floods the machining interface.
- f) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 100 ppm by volume.
- g) Paved and unpaved roads and parking lots with public access.
- h) Antifreeze AST and portable compressor radiator filling operation; ethylene glycol; may qualify as a trivial activity if less than 100 pounds per day.
- i) Hobbs machines that use Perkut 226-HD machining oil as a cutting fluid; a small amount of VOC may be emitted as oil mist.
- j) Coating with spray cans with VOC emissions less than 15.0 pounds per day.

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A, (Source Summary) of this permit, with VOC emissions less than 5 pounds per hour or 15 pounds per day;

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 USC 401, et seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments). This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-14 and IC 13-7-10), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

e) Utilize any photographic, recording, testing, monitoring, or other equipment for the Operation Permit purpose of demonstrating compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]	
Original issued by Paul Dubenetzky, Branch Chief, Office of Air Management	Issuance Date: December 10, 1996 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16] a) The Permittee shall pay annual fees to IDEM, OAM, consistent with the fee schedule established in 326 IAC 2-8-16.
First Significant Modification: SMF-091-9389	b) Failure to pay may result in administrative enforcement action, revocation of this permit, referral to the Office of Attorney General for collection, or other appropriate measures. Pages Affected: 2, 3, 4, 5, 10, 19a, 20-22, 22a, 23a, 23b, 28
Issued by: The Permittee shall pay the annual fees within 30 calendar days of receipt of a bill from IDEM, OAM or in a time period that is consistent with the payment schedule assigned by IDEM, OAM.	Issuance Date: (30) calendar days of receipt of a bill from IDEM, OAM or in a time period that is consistent with the payment schedule assigned by IDEM, OAM.

- d) If the Permittee does not receive a bill from IDEM, OAM, thirty (30) calendar days before due date, the Permittee shall call the following telephone numbers: 1-800-451-6027 or 317-233-0179 (ask for OAM, Data Support Section), to determine the appropriate permit fee. The applicable fee is due April 1 of each year.

**B.26 Enhanced New Source Review [326 IAC 2]**

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The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any previously unpermitted facilities and such facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2 and A.3.

**C.13 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]**

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- (a) The Permittee shall submit a certified, annual emission statement that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

- a) One (1) spray paint booth, known as the Small Paint Booth, equipped with electrostatic air atomized spray equipment, equipped with dry filters for PM overspray control, exhausting through Stacks 64 and 65, capacity: 50 compressor parts per hour;
- b) One (1) spray paint booth, known as the Large Paint Booth, equipped with electrostatic air atomized spray equipment, equipped with dry filters for PM overspray control, exhausting through Stacks 67, 68, 69 and 70, capacity: 10 compressor parts per hour;
- c) One (1) spray paint booth, known as the Building 2 Paint Booth, equipped with air atomization spray equipment, equipped with dry filters for PM overspray control, exhausting through Stack 2-11, capacity: 20 compressor parts per hour;
- d) One cold solvent cleaning system;
- e) one (1) cold cleaner degreasing operation located at Building 3, identified as SK-1, with a maximum solvent consumption of 0.13 gallons per day, utilizing a closed cover for VOC emission control; and
- f) one (1) spray paint booth, identified as the Building 3 Paint Booth, with a maximum capacity of coating 3.0 metal compressors per day, utilizing air atomization application with dry filters for particulate control, and exhausting through one (1) stack (S/V ID ST-1).

### Emissions Limitations [326 IAC 2-8-4(1)]

#### D.1.1 Volatile Organic Compound

- a) The volatile organic compound (VOC) emissions from the coatings applied to the metal compressor parts in the Small Paint Booth shall not exceed to 14.9 pounds per day to avoid the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations).
- b) The total volatile organic compound (VOC) emissions from the four (4) paint booths (Small Paint Booth, Large Paint Booth, Building 2 Paint Booth, and Building 3 Paint Booth) plus the two (2) cold cleaning systems shall not exceed 8.02 tons per month. Therefore, the requirements of 326 IAC 2-7 do not apply.
- c) Pursuant to 326 IAC 8-2-9(d)(2) (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to the metal compressors at the Building 3 spray booth shall be limited to 3.5 pounds per gallon of coating less water delivered to the applicator in a coating operation that is air dried or forced warm air dried at temperatures up to 194°Fahrenheit. Compliance with this limit shall be achieved pursuant to 326 IAC 8-1-2, using a daily volume weighted average of all coatings applied in the paint booth. This shall be calculated as follows:

$$\text{Volume-Weighted Average} = \frac{3(\text{individual coating usage (gal/hr)} * E_c)}{3(\text{coating usage (gal/hr)})}$$

where:  $E_c$  = pounds of VOC per gallon of coating less water for each coating

The Volume Weighted Average for all coatings delivered to the Building 3 paint booth must be less than or equal to 3.5 pounds VOC per gallon. Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

**D.1.2 Hazardous Air Pollutants**

The hazardous air pollutant emissions from the entire source shall be limited as follows:

- a) A single hazardous air pollutant (HAP) emissions shall not exceed 0.75 tons per month.
- b) Any combination of HAPs emissions shall not exceed 2.0 tons per month.

Therefore, the requirements of 326 IAC 2-7 do not apply.

**D.1.3 Particulate Matter Overspray**

The dry filters for particulate matter overspray control shall be in operation at all times when the four (4) spray paint booths (Small Paint Booth, Large Paint Booth, Building 2 Paint Booth, and Building 3 Paint Booth), are in operation. The facilities shall comply with 326 IAC 6-3-2 (c). The 326 IAC 6-3-2 equations are as follows:  $E = 4.10 P^{0.67}$ , where P equals process weight in tons per hour for process weights up to and including sixty thousand (60,000) pounds per hour and E equals the allowable emission rate in pounds per hour. For process weights in excess of sixty thousand (60,000) pounds per hour,  $E = 55.0 P^{0.11} - 40$ .

**D.1.4 Preventive Maintenance [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each surface coating booth and its control device.

**Compliance Determination Requirements**

**D.1.5 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]**

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**D.1.6 Volatile Organic Compounds (VOC)**

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**D.1.7 VOC Emissions**

Compliance with Condition D.1.1(b) shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

## **Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]**

### **D.1.8 Monitoring**

Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To document compliance with Condition D.1.3 observations shall be made daily of the overspray from the surface coating booth stacks 64, 65, 67, 68, 69, 70, 2-11, and ST-1 while one or more of the booths is in operation.

Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when a noticeable change in overspray emission, or evidence of overspray emission is observed

Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

### **D.1.9 Volatile Organic Compounds**

The volatile organic compound (VOC) emissions from the two (2) cold solvent cleaning systems shall comply with 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control).

### **D.1.10 Daily Visible Emissions Notations**

Daily visible emission notations of the spray booth stack exhausts, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

### **D.1.11 Record Keeping Requirements**

a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1 and D.1.2.

- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
- (2) A log of the dates of use;
- (3) The volume weighted VOC content of the coatings used for each month;

- (4) The cleanup solvent usage for each month;
- (5) The total VOC usage for each month; and
- (6) The weight of VOCs emitted for each compliance period.

Compliance will be determined in accordance with 326 IAC 8-1-2 (Compliance Methods)

- b) To document compliance with Condition D.1.8 and D.1.10 the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventative Maintenance Plan.
- c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Hazardous Air Pollutant (HAP)

The Permittee shall maintain records at the facility of the materials used that contain any HAPs. The records shall be complete and sufficient to establish compliance with the HAP usage limits and/or HAP emission limits that may be established in this permit. The records shall contain a minimum of the following:

- a) The weight of HAP containing material used, including purchase orders and invoices necessary to verify the type and amount used;
- b) The HAP content (**weight percent**) of each material used;
- c) The weight of HAPs emitted for each compliance period, considering capture and control efficiency, if applicable; and
- d) Identification of the facility or facilities associated with the usage of each HAP.

D.1.13 Quarterly Reporting

A quarterly summary to document compliance with operation condition numbers D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

## **SECTION D.3 FACILITY CONDITIONS**

- (a) one (1) cold cleaner degreasing operation located at Building 3, identified as SK-1, with a maximum solvent consumption of 0.13 gallons per day, utilizing a closed cover for VOC emission control; and
- (b) one (1) spray paint booth, identified as the Building 3 paint booth, with a maximum capacity of coating 3.0 metal compressors per day, utilizing air atomization application with dry filters for particulate control, and exhausting through one (1) stack (S/V ID ST-1).

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **Construction Conditions [326 IAC 2-1-3.2]**

#### **General Construction Conditions**

- D.3.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### **Effective Date of the Permit**

- D.3.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.3.3 Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.
- D.3.4 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### **First Time Operation Permit**

- D.3.5 This document shall also become the first-time operation permit for the facilities under this section of this permit, pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration & Development Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Sullair Corporation  
Source Address: 3700 East Michigan Boulevard, Michigan City, Indiana 46360; and  
Source Address: 4921 Ohio St., Michigan City, Indiana 46360  
Mailing Address: 3700 East Michigan Boulevard, Michigan City, Indiana 46360; and  
FESOP No.: F091-5794-00017 and SMF-091-9389  
Facility: Large and Small Paint Booths, Building 2 Paint Booth, Building 3 Paint Booth,  
and  
the two (2) cold cleaner degreasing operations.  
Parameter: VOC and HAPs usage including cleanup solvents  
Limit: 0.75 tons per month of any single HAP;  
2.00 tons per month of any combination of HAPs; and  
8.02 tons per month of VOC.

YEAR: \_\_\_\_\_

Month	Total VOC Usage (tons)	Worst Case Single HAP usage (tons)	Combination of HAPs usage (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

## **Indiana Department of Environmental Management Office of Air Management**

### **Technical Support Document (TSD) for First Significant Permit Modification of the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)**

#### **Source Background and Description**

Source Name:	Sullair Corporation	
Source Location:	4921 Ohio St., Michigan City, Indiana 46360	
County:	LaPorte	
FESOP No.:	F091-5794-00017	Issued: December 10, 1996
Revision No.:	SMF-039-9389	
SIC Code:	3563	
Permit Reviewer:	Jeremy Magliaro/EVP	

#### **History**

On January 16, 1998, Sullair Corporation filed an application with the Office of Air Management (OAM) relating to: a) the construction and operation of a new surface coating booth and a new cold cleaner degreaser to be located at a new building located at 4921 Ohio St., Michigan City, Indiana, and b) on March 13, 1998, they requested to incorporate these changes into their FESOP issued December 10, 1996. The following changes were agreed to as the First Significant Modification to the FESOP for this air and gas compressor manufacturing company

#### **Source Definition**

This air and gas compressor manufacturing company consists of two (2) plants:

- (a) Plant 1 is an existing plant located at 3700 East Michigan Blvd., Michigan City, IN; and
- (b) Plant 2 consists of this modification, located at 4921 Ohio St., Michigan City, IN..

Since the two (2) plants are located on adjacent properties, (the two plants are located in close proximity in the same city and exchange raw materials, therefore they are considered to be located on adjacent properties per U.S. EPA guidance), have the same SIC codes and are owned by one company, they will be considered as one (1) source.

#### **Changes Proposed**

- (a) The construction and operation of the following new equipment to be added to the FESOP:
  - (1) one (1) spray paint booth, identified as the Building 3 paint booth, with a maximum capacity of coating 3.0 metal compressors per day, utilizing air atomization application with dry filters for particulate control, and exhausting through one (1) stack (S/V ID ST-1);

- (2) one (1) cold cleaner degreasing operation, identified as SK-1, with a maximum solvent consumption of 0.13 gallons per day, utilizing a closed cover for VOC emission control.
- (b) The following changes have been made to the FESOP:
- (1) Condition A.2, Page 4 of 28  
Add to the listing of emission units the following:  
  
one (1) spray paint booth, identified as the Building 3 paint booth, with a maximum capacity of coating 3.0 metal compressors per day, utilizing air atomization application with dry filters for particulate control, and exhausting through one (1) stack (S/V ID ST-1);
  - (2) Condition A.2, Page 5 of 28  
Add to the listing of insignificant activities the following:  
  
one (1) cold cleaner degreasing operation, identified as SK-1, with a maximum solvent consumption of 0.13 gallons per day, utilizing a closed cover for VOC emission control, with VOC emissions less than 5 pounds per hour or 15 pounds per day;
  - (3) Condition B.26, Page 15 of 28  
Add a new condition to address Enhanced New Source Review (ENSR) as follows:  
  
“The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2.”
  - (3) Condition C.13, Pages 19a of 31  
Under Condition C.13, an annual Emission Statement requirement has been added to the FESOP.
  - (4) Section D.1, Page 20 of 22  
The revised equipment list in Section A.2 shall be listed under this section.
  - (5) The following conditions have been added or modified to Section D.1:
    - (a) Condition D.1.1(b), page 20 of 28, the wording which indicates “three (3) paint booths” has been changed to read “four (4) paint booths” to incorporate this modification;
    - (b) Condition D.1.1(c), Page 20 of 28, a VOC usage limit of 3.5 pounds VOC per gallon of coating less water delivered to the applicator of the Building 3 Paint Booth has been added to the FESOP. The method of compliance shall be the daily Volume Weighted Average ;
    - (c) Condition D.1.3, page 21 of 28, wording which indicates “three (3) paint booths” has been changed to read “four (4) paint booths” to incorporate this modification;

Condition D.1.5, page 21 of 28, wording which indicates "two (2) cold solvent cleaning systems" was added into the FESOP;

- (d) Condition D.1.7, page 22 of 28, wording which indicates that a Preventive Maintenance Plan is required for "each surface coating booths and its control device" was added into the FESOP;
- (e) Condition D.1.8, page 22 of 28, a newly formatted record keeping requirement was added to comply with permit conditions D.1.1, D.1.2, D.1.4, and D.1.6.

Previously existing conditions have been renumbered accordingly.

- (6) Section D.3, Pages 23a and 23b of 28  
This section has been added to include:
  - (a) The General Construction Conditions, Effective Date of this Permit; and First Time Operation Permit Conditions required for the new surface coating facilities; and
- (7) Quarterly Reporting Form, Page 28 of 28.  
A new quarterly reporting form to comply with Condition D.1.2 has been included added to the FESOP to replace the existing form on page 28.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (inches)	Flow Rate (acfm)	Temperature (°F)
ST-1	Spray Booth	23	2.83	unknown	ambient

### Recommendation

The staff recommends to the Commissioner that this modification be approved.

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on January 16, 1998.

### Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (two (2) pages).

### Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition for the proposed surface coating equipment only (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	99	114.20
Particulate Matter (PM10)	99	114.20
Sulfur Dioxide (SO <sub>2</sub> )	--	--
Volatile Organic Compounds (VOC)	99	99.70
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO <sub>x</sub> )	--	--
Single Hazardous Air Pollutant (HAP)	--	2.88
Combination of HAPs	--	4.72

- (a) Allowable emissions of PM, PM10, and VOC are determined from the applicability of rule 326 IAC 2-8 for the source.
- (b) Allowable emissions (as defined in the Indiana Rule) of PM10 and VOC are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.
- (c) This First Significant Modification to the FESOP is being done simultaneously with Enhanced New Source Review such that the modified emission limits under the modified FESOP continue to satisfy the requirements of 326 IAC 2-8, and 326 IAC 2-7 (Part 70 Permit Program) does not apply to this source.

### Proposed Modification

PTE from the proposed First Significant Modification to FESOP F091-5794-00017 (based on limited operation (per Operation Condition Nos. D.1.1b , D.1.1c, D.1.2, and D.1.3):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO <sub>2</sub> (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO <sub>x</sub> (ton/yr)	Single HAP (ton/yr)	Combo HAPs (ton/yr)
PTE from Proposed Modification (Units ST-1, SK-1)	33.42	33.42	0.00	93.97	0.00	0.00	2.30	4.14
Existing FESOP Limits (F091-5794-00017, issued on December 10, 1996)	69.30	69.30	2.00	99.00	6.55	30.40	9.00	24.00
Total Limited PTE Under Modified FESOP SMF039-9351	69.30	69.30	2.00	192.97	6.55	30.40	11.30	28.14
Revised FESOP Limits	69.3	69.3	2.0	99.0	6.6	30.4	9.0	24.0
Title V Significant Levels	99	99	99	99	99	99	9	24
Note: This source will be able to keep its FESOP status.								

This First Significant Modification to the stationary source FESOP will **not** change the status of the stationary source because the emissions increase is still less than the FESOP significant levels. Therefore, the following requirements will not apply:

- (a) PSD, 326 IAC 2-2, and 40 CFR 52.21,
- (b) Emission Offset, 326 IAC 2-3, and
- (c) Part 70 Permit Program, 326 IAC 2-7.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 63) applicable to this facility.

### **State Rule Applicability**

The following State Rule changes have been added to this source as a result of the First Significant Modification to the FESOP :

#### **326 IAC 2-8-4 (FESOP)**

Pursuant to this rule, the VOC usage, source-wide, shall be limited to total of 99.0 tons per any twelve (12) consecutive months. The modified emission limits under this FESOP modification continue to satisfy the requirements of 326 IAC 2-8, and 326 IAC 2-7 (Part 70 Permit Program) does not apply to this source. This requirement also satisfies the requirements of 326 IAC 2-2 and 326 IAC 2-3. See Appendix A for supporting calculations (two pages).

#### **326 IAC 2-6 (Emission Reporting)**

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons/yr of VOC and PM-10. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

#### **326 IAC 5-1-2 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

#### **326 IAC 6-3 (Process Operations)**

Pursuant to 326 IAC 6-3 (Process Operations):

- (a) The dry filters for particulate matter overspray control shall be in operation at all times when the paint booth is in operation.
- (b) The surface coating operation shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 4.10P^{0.67} \quad \text{where: } E = \text{rate of emission in pounds per hour,} \\ P = \text{process weight in tons per hour.}$$

- (c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4-2, fugitive dust shall not be seen crossing the boundary or property line of the plant. The source shall comply with all requirements under 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 8-2-9 (Miscellaneous Metal Coatings)

The paint booth identified as Booth 1 is subject to 326 IAC 8-2-9 (Miscellaneous Metal Coatings) because it has potential VOC emissions greater than 25 tons per year. Pursuant to 326 IAC 8-2-9(d)(2) (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to the metal compressors shall be limited to 3.5 pounds per gallon of coating less water delivered to the applicator in a coating operation that is air dried or forced warm air dried at temperatures up to 194°F Fahrenheit. Compliance with this limit shall be achieved pursuant to 326 IAC 8-1-2, using a daily volume weighted average of all coatings applied in the paint booth. This shall be calculated as follows:

$$\text{Volume-Weighted Average} = \frac{3(\text{individual coating usage (gal/hr)} * E_c)}{3(\text{coating usage (gal/hr)})}$$

where:  $E_c$  = pounds of VOC per gallon of coating less water for each coating

The Volume Weighted Average for all coatings delivered to Booth 1 must be less than or equal to 3.5 pounds VOC per gallon. Pursuant to 326 IAC 8-1-2(a)(7) (Compliance Methods), records of daily usage of gallons solids coating and VOC content of each coating shall be maintained and made available upon request. Also, records of daily emissions in pounds VOC shall be maintained and made available upon request. Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The cold cleaner degreaser operation is subject to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control).

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) the solvent is agitated; or
    - (C) the solvent is heated.

- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

### Compliance Monitoring

These monitoring conditions are necessary because the VOC emissions at the source must be below the Title V major source level of 100 tons per year; the facility must comply with 326 IAC 8-2-9 (Miscellaneous Metal Coatings, and the source must demonstrate compliance with the FESOP limits established in 326 IAC 2-8-4.

A quarterly summary of these records shall be reported to OAM Compliance Section. These reports shall include total monthly VOC emissions from the above listed emission units in tons per month and tons per twelve (12) consecutive month period.. These monitoring conditions are necessary to comply with 326 IAC 8-2-9 (Miscellaneous Metal Coatings) and 326 IAC 2-8-5 (Compliance Requirements for FESOPs).

### **Air Toxic Emissions**

- (a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See attached spreadsheets for detailed air toxic calculations.
- (c) This modification is not subject to 326 IAC 2-1-3.4 (New Source Toxics Control) because it will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.

### **Conclusion**

The modification of this air and gas compressor manufacturing source will be subject to the conditions of the attached proposed FESOP Significant Modification Permit No. SMF-091-9389-00017.

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for First Significant Permit Modification of the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)

#### Source Background and Description

Source Name:	Sullair Corporation		
Source Location:	4921 Ohio St., Michigan City, Indiana 46360		
County:	LaPorte		
FESOP No.:	F091-5794-00017	Issued:	December 10, 1996
Revision No.:	SMF-039-9389		
SIC Code:	3563		
Permit Reviewer:	Jeremy Magliaro/EVP		

On May 1, 1998, the Office of Air Management (OAM) had a notice published in the News Dispatch, Michigan City, Indiana, stating that Sullair Corporation had applied for a Significant Modification to the Federally Enforceable State Operating Permit (FESOP) to operate a surface coating booth and degreaser operation. The notice also stated that OAM proposed to issue a Significant FESOP Modification for this operation and provided information on how the public could review the proposed Significant FESOP Modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Significant FESOP Modification should be issued as proposed.

Upon further review, the OAM has decided to make the following changes to the Significant FESOP Modification (changes indicated by bold or strikeout for emphasis).

- (1) The front page of the permit mistakenly read "First Minor Permit Modification", it has been changed to read "First Significant Permit Modification".
- (2) Condition D.1.7 (Preventative Maintenance Plan), on page 27 of 28 of the FESOP has been relocated as Condition D.1.4 under the *Emission Limitations [326 IAC 2-8-4(1)]* section of the FESOP. The remaining conditions in Section D have been renumbered accordingly.
- (3) The following Compliance Determination Requirements D.1.5 (Testing Requirements), D.1.6 (Volatile Organic Compounds), and D.1.7 (VOC Emissions) have been added to the permit. The remainder of Section D has been renumbered accordingly.

#### Compliance Determination Requirements

##### **D.1.5 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]**

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The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### **D.1.6 Volatile Organic Compounds (VOC)**

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**Compliance with the VOC content and usage limitations contained in Conditions D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.**

#### **D.1.7 VOC Emissions**

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**Compliance with Condition D.1.1(b) shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.**

- (4) Condition D.1.4 (now D.1.8) (Monitoring), on page 20 of 28 has been changed as follows:

##### **D.1.8 Monitoring**

Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To document compliance with Condition D.1.3 observations shall be made daily of the overspray **from the surface coating booth stacks 64, 65, 67, 68, 69, 70, 2-11, and ST-1** while one or more of the booths is in operation.

Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an ~~overspray emission, evidence of overspray emission, or other abnormal emission is observed~~ **a noticeable change in overspray emission, or evidence of overspray emission is observed.**

Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

- (5) Condition D.1.6 (now D.1.10) (Daily Visible Emissions Limitations) has been changed as follows:

##### **D.1.10 Daily Visible Emissions Notations**

Daily visible emission notations of the spray booth stack exhausts, shall be performed during normal daylight operations **when exhausting to the atmosphere**. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

Mail to: Permit Administration & Development Section  
Office Of Air Management  
100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015

Sullair Corporation  
3700 E. Michigan Blvd.  
Michigan City, Indiana 46360

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make  
these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Sullair Corporation, 4921 Ohio St., Michigan City, IN 46360 has constructed the surface coating booth in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on January 16, 1998 and as permitted pursuant to **SMF-091-9389, Plant ID No. 091-00017** issued on \_\_\_\_\_.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_)

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.  
My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (typed or printed)

# **Appendix A: Emission Calculations** **HAP Emission Calculations**

**Company Name:** Sullair Corporation  
**Address City IN Zip:** 4921 Ohio St., Michigan City, Indiana 46360  
**SMF:** 091-9389  
**Plt ID:** 091-00017  
**Reviewer:** Jeremy Magliaro/EVP  
**Date:** January 30, 1998

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MEK	Weight % Ethylbenzene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Methyl Ethyl Ketone Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)
Green Urethane Enamel	10.96	48.000000	0.13	1.00%	0.00%	0.00%	0.00%	2.88	0.00	0.00	0.00
White Urethane Enamel	8.89	48.000000	0.13	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00
Methyl Ethyl Ketone	6.71	0.500000	0.13	0.00%	0.00%	100.00%	0.00%	0.00	0.00	1.84	0.00
Safety-Kleen Solvent	6.55	0.042000	0.13	1.00%	0.50%	0.00%	0.50%	0.00	0.00	0.00	0.00

Total State Potential Emissions	<b>2.88</b>	<b>0.00</b>	<b>1.84</b>	<b>0.00</b>
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Total limited single HAP emissions calculated using 80% usage of green enamel and 20% usage of white enamel to comply with 326 IAC 8-2-9 (Misc. Metal Coatings).

- Such that 0.8(2.88 tons/yr) + 0.2(0.0 tons/yr) = 2.3 tons Xylene per year (Worst case single HAP).

The total limited HAP emissions from the construction is equal to potential HAP emissions from the Coatings + Methyl Ethyl Ketone cleaner+ degreasing solvent.

- Such that 2.3 tons/year + 1.84 tons/year = 4.14 tons total HAPS per year (Worst case total HAPS)

## **METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emission Calculations  
VOC and Particulate  
From Surface Coating Operations**

**Company Name:** Sullair Corporation  
**Address City IN Zip:** 4921 Ohio St., Michigan City, Indiana 46360  
**SMF:** 091-9389  
**Plt ID:** 091-00017  
**Reviewer:** Jeremy Magliaro/EVP  
**Date:** January 30, 1998

Potential Emissions (uncontrolled):																	
Material (as applied)	Process	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
Green Urethane Enamel	Booth 1	10.96	33.92%	0.00%	33.92%	0.00%	66.08%	48.000	0.13	3.7	3.72	22.31	535.34	97.70	114.20	14.06	0.4
White Urethane Enamel	Booth 1	8.89	28.54%	0.00%	28.54%	0.00%	71.46%	48.000	0.13	2.5	2.54	15.22	365.36	66.68	100.17	8.88	0.4
<b>Daily Weighted Avg.(1)</b>	<b>Booth 1 Coatings</b>	<b>xxxx</b>	<b>xxxx</b>	<b>xxxx</b>	<b>xxxx</b>	<b>xxxx</b>	<b>xxxx</b>	<b>48.000</b>	<b>0.13</b>	<b>3.5</b>	<b>3.50</b>	<b>21.00</b>	<b>504.00</b>	<b>91.98</b>	<b>111.40</b>	<b>xxxx</b>	<b>0.4</b>
<b>Methyl Ethyl Ketone</b>	<b>Booth 1 Cleaning</b>	<b>6.71</b>	<b>100.00%</b>	<b>0.00%</b>	<b>100.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.500</b>	<b>0.13</b>	<b>6.7</b>	<b>6.71</b>	<b>0.42</b>	<b>10.07</b>	<b>1.84</b>	<b>0.00</b>	<b>N/A</b>	<b>1</b>
<b>Safety-Kleen Solvent</b>	<b>Degreaser</b>	<b>6.55</b>	<b>100.00%</b>	<b>0.00%</b>	<b>100.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.042</b>	<b>0.13</b>	<b>6.6</b>	<b>6.55</b>	<b>0.04</b>	<b>0.85</b>	<b>0.16</b>	<b>0.00</b>	<b>ERR</b>	
<b>Total Potential Emissions:</b>												<b>21.45</b>	<b>514.92</b>	<b>99.70</b>	<b>111.40</b>		
Potential Emissions (controlled):																	
										Control Efficiency:		Controlled VOC lbs per Hour	Limited VOC lbs per Day	Limited VOC tons per Year	Controlled PM tons/yr		
										VOC	PM						
<b>Total Potential Emissions:</b>										0.00%	70.00%	<b>21.45</b>	<b>514.92</b>	<b>93.98</b>	<b>33.42</b>		

Total potential worst-case VOC emissions are equal to VOC usage in the Green enamel, methyl ethyl ketone solvent, and degreasing solvent such that total emissions were equal to : 97.70 + 1.84 + 0.16 = 99.70 tons VOC/yr.

(1) Pursuant to 326 IAC 8-2-9, the VOC content of the coatings is limited to 3.5 lb/gal. The source will comply with this limit using a daily weighted average which will limit emissions as follows:

3.5 lb VOC/gal coating x 48.0 gal/unit x 3 units/day x 365 days/yr x 1 ton/2000 lbs = 91.98 tons VOC per year (potential).

Total limited PM emissions calculated using 80% usage of green enamel and 20% usage of white enamel to comply with 326 IAC 8-2-9 (Misc. Metal Coatings) :

- Such that: 0.8(114.20 tonsPM/yr) + 0.2(100.7 tons PM/yr) = 111.40 tons PM/year (potential)

The total limited VOC emissions from the construction is equal to potential VOC emissions from the Daily Weighted Average, Methyl Ethyl Ketone cleaner, and the degreaser.

The spray booth utilizes air atomization application and dry filters with a 70% collection efficiency for particulate control.

Methodology:

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids) \* Transfer Efficiency

Total = Worst Coating + Sum of all solvents used

Controlled emission rate = uncontrolled emission rate \* (1 - control efficiency)